UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,795	09/27/2005	Shinkichi Ikeda	MAT-8755US	6232

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10 and 12-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-10 and 12-16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   The instant application having Application No. 10/551795 has a total of 16 claims

pending in the application; there are 3 independent claims; 12 dependent claims, all of

which are ready for examination by the examiner.

Oath/Declaration

2.   The applicant's oath/declaration has been reviewed by the examiner and is found

to conform to the requirements prescribed in **37 C.F.R. 1.63.**

Priority

3.   As required by **M.P.E.P. 201.14(c)**, acknowledgement is made of applicant's

claim for priority based on applications filed on 10/17/2003 (JAPAN 2003-357724) and

10/13/2004 (JAPAN 2004-298721).

Information Disclosure Statement

4.   As required by **M.P.E.P. 609(C)**, the applicant's submissions of the Information

Disclosure Statements dated 09/27/2005 and 08/23/2006 are acknowledged by the

examiner and the cited references have been considered in the examination of the

claims now pending. As required by **M.P.E.P 609 C(2)**, a copy of the PTOL-1449

initialed.

Response to Arguments

5.   Applicant's arguments with respect to claims 1-16 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kimura et al (US 2002/0133595) in view of Furukawa et al. (US 2002/0009073 A1).

8.   Regarding claim 1, Kimura teaches a home link setting method by a home

gateway device having a home agent function for accommodating terminals including

mobile terminals **(Home network as its home agent function includes: a home**

gateway, a mobile node see ¶[0007]), comprising:

a step of receiving network information for setting a home network through a

communication interface connected to an Internet network **(a communication interface**

fro communicating with devices included in home network and with ISP see

¶[0011-0012]); and

a home agent setting step of executing an internal setting so as cause to the

terminal on the selected link to conduct the home agent function **(home agent function**

"This routing function of home gateway 110 by which data is forwarded via a

tunnel to foreign router 300 of a foreign network on which the mobile node 160 is

now located is called a home agent function see ¶[0028]).

Kimura does not explicitly disclose a home link selecting step of selecting a home link from among links connecting to communication interfaces other than the communication interface which has received the network information.

Furukawa teaches a home link selecting step of selecting a home link from among links connecting to communication interfaces other than the communication interface which has received the network information (Network node apparatus select appropriate network links (902 video-net , general-net and IP phone-net) transfer data across the network "the relay control unit determines the line number and the signal link selection based upon the rule previously determined by the public switched telephone network" see ¶[1004]; Fig.1 elements 905-Y and 905).

It would have been obvious to one of ordinary skill in the art, having the teachings of Kimura and Furukawa before them at the time the invention was made to modify the home communication network of Kimura to include a home link selecting step of selecting a home link from among links connecting to communication interfaces other than the communication interface which has received the network information as taught by Furukawa.

One of ordinary skill in the art would have been motivated to make this modification in to provide efficient loads transfer over different bandwidth of networks in view of Furukawa.

9.   Regarding claim 2, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches wherein in said home link selecting step, a link to which a mobile terminal complying with a mobile IP protocol is connected

is designated as the home link (**mobile IP allows the mobile terminal to communicate even when it has moved to a network other than the predetermined network see ¶[0005]**).

10.   Regarding claim 3, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches

a step of acquiring home agent information stored in the mobile terminal connected to the link connecting to the communication interface (**The control circuit receives data and information indicating the mobile terminal as a destination of the data, and controls, based on the received information indicating the mobile terminal as the destination of the data and the information stored in the location management table, such that the communication circuit sends the received data to the mobile terminal as the destination thereof see ¶[0038]**),

wherein in said home agent setting step, when the home agent information meets conditions specified by the network information, the internal setting is executed using the acquired home agent information, whereas when the home agent information does not meet the conditions, the internal setting is executed using home agent information generated based on the network information (**the process for location registration Fig.19 step S1000-S1004; ¶[0084-0087]**).

11.   Regarding claim 4, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches wherein in said home agent setting step, when the internal setting is executed using home agent information which is newly generated, notification of the new home agent information is given to all mobile

terminals on the home link **(agent advertisement messages are transmitted (multicasted or broadcasted) periodically by agent advertisement transmission circuit see ¶[0020]).**

12.   Regarding claim 5, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches a step of acquiring information concerning a mobile router function stored in the mobile terminal, wherein when the mobile terminal performs a mobile router operation, a setting of the home agent corresponding to the mobile router is executed **(mobile node includes a control unit, the storage circuit 168 for storing various kinds of data including location information data and wireless communication circuit for wireless communication with access point 150 see ¶[0014]).**

13.   Regarding claim 6, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches

plural communication interfaces connected to an Internet network or a local link; a network information processing unit receiving network information for setting a home network through said communication interfaces **(home gateway having routing function that forward packets between routers and one network may be set for plurality of mobile nodes as their home network see ¶[0006-0007]);**

an interface setting unit selecting one of the links connecting to communication interfaces other than the communication interface which has received the network information to be a home link **(Location Management Table which is created based on a location registrant request message from mobile node see ¶[0011]);**

a home agent processing unit performing a home agent function with respect to terminals on the home link **(home gateway control unit for control of home gateway see ¶[0007]; ¶[0011])** and

a home agent setting unit executing settings in said home agent processing unit so as to cause with respect to the terminal on the link designated as the home link by said interface setting unit to conduct the home agent function **(home agent function "This routing function of home gateway 110 by which data is forwarded via a tunnel to foreign router 300 of a foreign network on which the mobile node 160 is now located is called a home agent function see ¶[0028]).**

14.   Regarding claim 7, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches wherein said interface setting unit transmits a verification message **(upon receipt of this agent advertisement message, mobile node 160 compares the home agent address stored in storage unit 168 of mobile node 160 with the address included in the received agent advertisement message to determine whether it is located on its home network or on a foreign network see ¶[0018])** for verifying the existence of mobile terminal complying with a mobile IP, and designates the link connecting to the communication interface which has received a message responding to the verification message notifying the existence of the mobile terminal, as the home link **(from the location registration request message to verify existence of mobile terminal with a IP "The location registration request message includes: a communication header; an address of ISP 1200 as a destination address; an IP address of mobile node 160**

as a source address; and an address of home gateway 110 or foreign router 300 that the mobile node received" see ¶[0080]).

15.   Regarding claim 8, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches

wherein said interface setting unit acquires home agent information stored in the mobile terminal connected to the home link **(The control circuit receives data and information indicating the mobile terminal as a destination of the data, and controls, based on the received information indicating the mobile terminal as the destination of the data and the information stored in the location management table, such that the communication circuit sends the received data to the mobile terminal as the destination thereof see ¶[0038]),** and ·

wherein when the home agent information meets conditions specified by the network information, said home agent setting unit performs a setting of the home agent function using the acquired home agent information, whereas when the home agent information does not meet the conditions, said interface setting unit generates home agent information based on the network information and said home agent setting unit performs a setting of said home agent processing unit using the generated home agent information **(the process for location registration and how to obtain care of address (home agent information) see Fig.19; ¶[0084-0090]).**

16.   Regarding claim 9, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches wherein when said interface setting unit newly generates the home agent information, said home agent setting unit

notifies all terminals on the home link of the new home agent information **(agent advertisement messages are transmitted (multicasted or broadcasted) periodically by agent advertisement transmission circuit see ¶[0020]).**

17.   Regarding claim 10, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches wherein said interface setting unit further acquires information concerning a mobile router function stored in the mobile terminal, and wherein when the mobile terminal performs a mobile router operation, said home agent setting unit executes a setting corresponding to the mobile router in said home agent processing unit **(mobile node includes a control unit, the storage circuit 168 for storing various kinds of data including location information data and wireless communication circuit for wireless communication with access point 150 see ¶[0014]).**

18.   Regarding claim 12, Kimura teaches a mobile terminal, comprising: a mobile IP processing unit supporting

a mobile IP protocol **(mobile IP allows the mobile terminal to communicate even when it has moved to a network other than the predetermined network see ¶[0005])** and receiving a verification message for verifying the existence of the mobile terminal connected on a link **(from the location registration request message to verify existence of mobile terminal with a IP "The location registration request message includes: a communication header; an address of ISP 1200 as a destination address; an IP address of mobile node 160 as a source address; and**

an address of home gateway 110 or foreign router 300 that the mobile node received" see ¶[0080]);

a home agent information response unit generating a response message in which stored home agent information is written, upon receipt of notification of receipt of the verification message from said mobile IP processing unit (**upon receipt of this agent advertisement message, mobile node 160 compares the home agent address stored in storage unit 168 of mobile node 160 with the address included in the received agent advertisement message to determine whether it is located on its home network or on a foreign network see ¶[0018])**,

wherein said mobile IP processing unit transmits the response message to the transmission source device which transmitted the verification message (**repose back to the transmission device by send location registration request "Mobile node 160 detects that the address of foreign router 300 included in the received agent advertisement message is different from the home agent address in the location information data stored in storage circuit 168. Mobile node 160 thus sends a location registration request message to ISP 1200" see ¶[0082]).**

Kimura does not explicitly teaches the mobile IP processing unit further transmits a response message in which the stat of its mobile router processing is written.

Furukawa teaches the mobile IP processing unit further transmits a response message in which the stat of its mobile router processing is written (The H323 termination unit return confirmation of telephone call back to user in state of phone call

entered router network "the H323 termination unit 23-1 detects that the telephone call is entered from the communication line 53-1, and returns an IP packet 46-2 in order to confirm the telephone call (Step ST21) see ¶[0481]).

It would have been obvious to one of ordinary skill in the art, having the teachings of Kimura and Furukawa before them at the time the invention was made to modify the home communication network of Kimura to include the mobile IP processing unit further transmits a response message in which the stat of its mobile router processing is written as taught by Furukawa.

One of ordinary skill in the art would have been motivated to make this modification in to perform confirmation and security purpose in view of Furukawa.

19.   Regarding claim 14, Kimura together with Furukawa taught home communication network as described above. Kimura further teaches the mobile terminal according to claim 12, wherein said mobile IP processing unit transmits the response message only when the mobile terminal is connected to a home agent **(mobile node in the own network able to transmit response back to the agent advertisement "Mobile node 160 sends this location registration request message in response to the agent advertisement message transmitted by agent advertisement transmission circuit 124" see ¶[0011]).**

20.   Regarding claim 15, claim 15 is rejected for the same reason as claim 5 as set forth hereinabove.

21.   Regarding claim 16, claim 16 is rejected for the same reason as claim 10 as set forth hereinabove.

22.   Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kimura et al. (US 2002/0133595 A1) in view of Furukawa et al. (US 2002/0009073 A1),

and further in view of Leung (US 6,466,964 B1).

Kimura together with Furukawa taught the home link network according to claim

12, as described above. Kimura teaches a system communicating data with a mobile

node includes a server and a plurality of networks connected to the server. The mobile

IP allows the mobile terminal to communicate even when it has moved to a network

other than the predetermined network, without a need to change its IP address

identifying itself (see ¶[0005]). Kimura further teaches control unit that includes a

routing circuit of home gateway by which data is forward via tunnel to foreign router of a

foreign network on which the mobile node is now located **(see ¶[0028])**; an agent

advertisement transmission circuit that transmits an agent advertisement message **(see**

¶[0012]). Furukawa teaches the mobile IP processing unit further transmits a response

message in which the stat of its mobile router processing is written **(The H323**

termination unit return confirmation of telephone call back to user in state of

phone call entered router network "the H323 termination unit 23-1 detects that the

telephone call is entered from the communication line 53-1, and returns an IP

packet 46-2 in order to confirm the telephone call (Step ST21) see ¶[0481]).

Kimura together with Furukawa do not explicitly disclose when said mobile IP

processing unit does not support the mobile IP protocol, said home agent information

response unit des not transmit the response message even if the mobile terminal

receives the notification of receipt of the verification message from said mobile IP processing unit.

Leung teaches mobile IP processing unit does not support the mobile IP protocol, said home agent information response unit des not transmit the response message even if the mobile terminal receives the notification of receipt of the verification message from said mobile IP processing unit **(The node not support the mobile IP protocol wont obtain MAC address for the gateway "Since the node does not implement the mobile IP protocol, the node function without knowledge of the operation of the Foreign Agent or virtual agent scheme" col.14 lines 47-57).** Leung further provides the advantage of enabling a node that does not support Mobile IP to roam to various Foreign Agents so that it may receive packets sent to it by a corresponding node.

It would have been obvious to one of ordinary skill in the art, having the teachings of Kimura; Furukawa and Leung before them at the time the invention was made to modify the home communication network of Kimura and Furukawa to include non compatible mobile IP protocol not responding to MAC address of the gateway as taught by Leung.

One of ordinary skill in the art would have been motivated to make this modification in to provide unique protocol for the mobile communication network in view of Leung.

Conclusion

The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.05(c)**.

The following reference teaches execution of trial data.

- **US 2003/0043773 A1 (Chang)** discloses dynamic link switching of forward and reverse links for a wireless connection in the presence of multiple wireless network

The examiner requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guang Li whose telephone number is (571) 270-1897. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

December 17, 2007
Guang Li
Patent Examiner

JEFFREY PWU
SUPERVISORY PATENT EXAMINER